Core Content

Cluster Title: Interpret functions that arise in applications in terms of a context.

Standard: (+) Represent average rate of change as the slope of the secant line.

Concepts and Skills to Master

- Represent average rate of change as the slope of the secant line in an exponential function.
- Understand that the slope of a secant line approximates the rate of change in a given domain.

Supports for Teachers

Critical Background Knowledge

- Exponential function
- Calculate slope given two points

Academic Vocabulary

Secant, rate of change

Suggested Instruct	ional Strategies	Resources

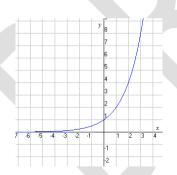
 Use contextual data that results in an exponential function to explore rate of change over a given period.

Sample Formative Assessment Tasks

Skill-based Task

Which of the domains below has a secant line with the greatest rate of change?

- A) $x=\{-5, -2\}$
- B) $x=\{-2, 1\}$
- C) $x=\{0, 2\}$
- D) $x=\{2, 4\}$



Problem Task

Create a context that could be modeled with an exponential function. Describe how the rate of change changes for different intervals and relate that change to the context.